

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) Cardiac laser surgery apparatus comprising
a sealed CO₂ slab laser, said slab laser including two narrowly spaced electrodes having opposed planar surfaces and a rectangular discharge region defined between said opposed planar surfaces of said two narrowly spaced electrodes[[],];
a controller to operate said laser to ~~providing~~ provide pulses of adjustable length shorter than 100 ms at in time so as to provide energy levels of between 8 and 80 Joules per pulse, and
a laser delivery system for delivering laser pulses from said laser to a patient's heart.
2. (Original) The apparatus of claim 1 wherein said laser delivery system includes a hand piece for delivering pulses to the outside of a patient's heart to provide openings in the patient's heart for myocardial revascularization.
3. (Cancelled)
4. (Original) The apparatus of claim 1 wherein said laser delivery system is synchronized to the heart beat to fire when the heart is electrically insensitive to reduce the chance of arrhythmia.
5. (Original) The apparatus of claim 4 wherein said laser starts firing on the R wave and stops before the T wave.

6. (Currently Amended) A method of cardiac laser surgery comprising operating a sealed CO₂ slab laser to output laser pulses, and delivering said laser pulses of adjustable length shorter than 100 ms at energy levels between 8 and 80 Joules per pulse to a patient's heart.
7. (Original) The method of claim 6 wherein said delivering provides openings in the patient's heart for myocardial revascularization.
8. (Cancelled)
9. (Original) The method of claim 6 wherein said laser delivery system is synchronized to the heart beat to fire when the heart is electrically insensitive to reduce the chance of arrhythmia.
10. (Original) The method of claim 9 wherein said laser starts firing on the R wave and stops before the T wave.

Claims 11-71 (Cancelled)

72. (New) The apparatus of claim 2 wherein said laser delivery system further comprises an articulated arm to deliver the laser pulses from said laser to said hand piece.
73. (New) The apparatus of claim 1 further comprising first and second mirrors disposed between said opposed planar surfaces of said two narrowly spaced electrodes.
74. (New) The apparatus of claim 73 further comprising a first adjustable connector affixed to the first mirror to permit angular adjustment of the first mirror with respect to a first

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axis and a second adjustable connector affixed to the second mirror to permit angular adjustment of the second mirror with respect to a second axis orthogonal to the first axis.